Basic Life Safety Code Course
Student Manual

Module 4, Lesson 12
Fire Alarm Systems

Performance Objectives

At the conclusion of this lesson, you will be able to:

- Identify the components and functions of a fire alarm system and determine whether they comply with NFPA 72.
- Determine whether a facility's emergency forces notification form complies with NFPA 72.
- Determine whether a facility's inspection and testing reports comply with NFPA 72.
- Complete K-51 through K-55, K-109 and K-155.

Purpose of Fire Alarm Systems

In healthcare facilities, notification of the staff is an alarm system's primary purpose

In any building, a properly designed, installed, and maintained fire alarm system can reduce fire losses. These losses include property and, more importantly, human life. The primary reason for fire alarm systems is providing early notification to building occupants when a fire occurs. In healthcare occupancies, the primary purpose is notifying the staff so that they can respond to the fire emergency (as opposed to evacuating the building). In addition, the fire alarm system notifies the local fire emergency center.

This lesson will assist you in understanding the basic features of fire alarm systems, inspection testing requirements, and required record keeping as noted in NFPA 72, *National Fire Alarm Code*.

Types of Systems

Fire alarms are transmitted to the local fire department via the four signaling systems:

- Central supervising station.
- Proprietary supervising station.
- Remote supervising station.
- Auxiliary fire alarm system.

Central Supervising Station

A central station (Figure 4.12-1) is a supervising station where signals are received. It must be listed by Underwriters Laboratories for central-station service and must be constantly attended. Operators take action on any signals received, including retransmission of the signal to the local fire department, and provide runner service. The following requirements apply to new central-station systems:

- The building fire alarm certification must be located on or within 36 inches of the fire alarm control unit (placarded).
- The central-station receiving building must be listed by Underwriters Laboratories for central-station service.
- The central station must take the following actions upon receiving a signal from a protected property:

    1. For a manual fire alarm, automatic fire detector, water flow detector, or actuation of other fire suppression system, it must immediately retransmit the alarm to the public fire communication center.

2. It must dispatch a runner to the property to arrive within one hour after receipt of a signal, if equipment needs to be reset.
3. It must notify the subscriber.
4. It must provide notice to the authority having jurisdiction (AHJ), if required.

Any of several methods may be used for transmitting the alarm signal from the property to the central supervising station: digital alarm communicator transmitters (DACTs), direct-connection circuits, or radio transmission.

Digital Alarm Communicator Transmitter
DACTs are the most commonly used method of automatic fire alarm notification.

Direct-Connection Circuits
Direct-connection circuits are directly wired circuits between the protected premises and the supervising station that are continuously monitored.

Radio Transmission
Radio transmission involves a traditional fire alarm system that uses a licensed two-way radio system to transmit signals from the property to the supervising station.

Testing Requirements: Central Supervising Station Fire Alarm System Transmitters
DACTs, direct-connection circuits, and radio transmission systems are required to be tested annually.

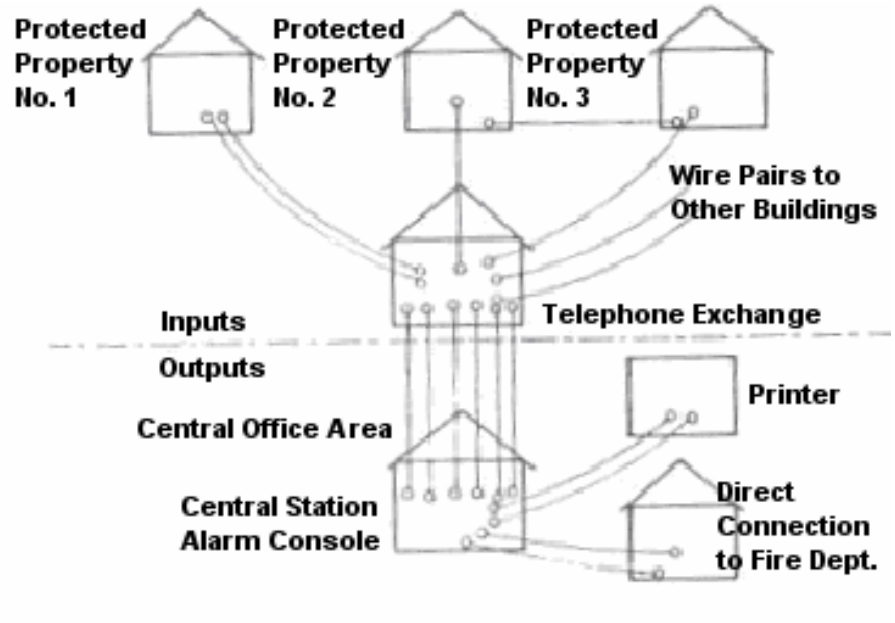


Figure 4.12-1. Central Station

Proprietary Supervising Station

A proprietary supervising station (Figure 4.12-2) is an installation of fire alarm systems serving contiguous and noncontiguous properties under single ownership. Monitoring and notification are accomplished from a proprietary station located at the protected property with trained personnel in constant attendance.

The following requirements apply to proprietary supervising stations:

- The supervising station must be located in a fire-resistant detached building or in a cutoff room that is not exposed to the hazardous part of the premises.
- Provision must be made to designate the buildings in which a signal originates.
- At least two operators must be on duty at all times. One of the operators can serve as a runner.
- All communications and transmission channels between the supervising station and protected properties must be operated once every 24 hours.
- Indication of fire must be promptly retransmitted to the public fire service communications center.
- Two means of retransmitting an alarm between the supervising station and the fire service communications center must be provided.
- Alarms must be transmitted from the protected property to the supervising station through signaling line circuits.
- Upon receipt of an alarm notification, a runner must be promptly dispatched to the alarm location (travel time must not exceed one hour).

Testing Requirements

The testing requirements for proprietary supervising stations are the same as those noted above for central stations.

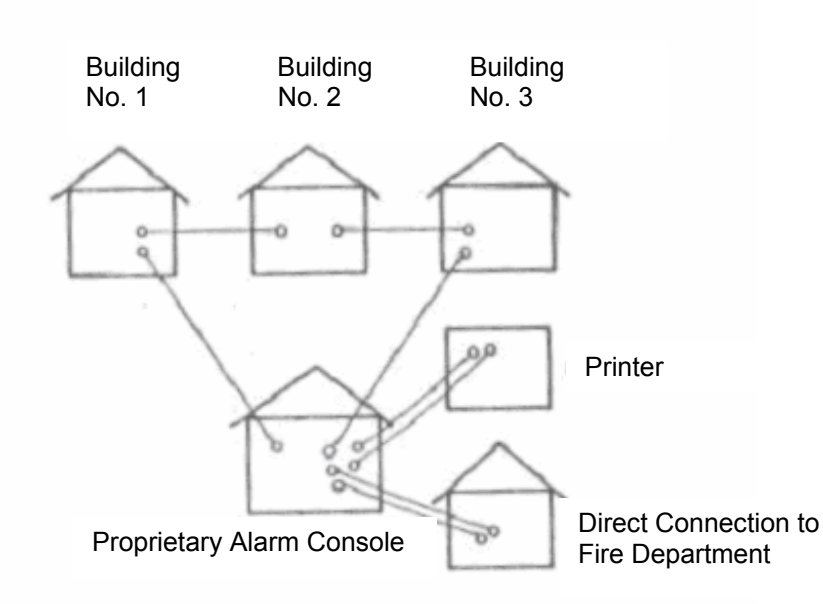


Figure 4.12-2. Proprietary Supervising Station

Remote Supervising Station

A remote supervising station (Figure 4.12-3) provides a connection between the protected premises and a public fire service communications center, a fire station, or a government agency that has a public responsibility for taking prescribed action to ensure response upon receipt of a fire alarm signal. If the agency is not willing to receive alarm signals or permits the AHJ to accept other locations than the agency for receipt of transmitted signals, these alternate locations must have personnel on duty at all times who are trained to receive and immediately retransmit the alarm to the fire department.

The following requirements apply to remote supervising stations:

- Signal-receiving equipment must indicate receipt of signal both audibly and visibly.
- The remote station must have no fewer than two persons on duty at any time to ensure receipt of transmitted signals and appropriate action.
- If the remote station is located somewhere other than the public fire service communications center, the alarm signal must be immediately retransmitted to the fire service communications center upon receipt.

- Transmission from protected property to the remote station location may be through the same means noted in the requirements for central supervising stations outlined above.
- The DACT method is the most commonly used.
- The alarm signal must be retransmitted from the remote station by one of the following methods (in descending order of preference):

  1. Dedicated circuit independent of any switched telephone network.
  2. One-way telephone used primarily for voice transmission of alarm to a telephone at the fire service communications center.
  3. Private radio system using fire department frequency (where permitted by the fire department).

Testing Requirements

The testing requirements for remote supervising stations are the same as those noted above for central supervising stations.

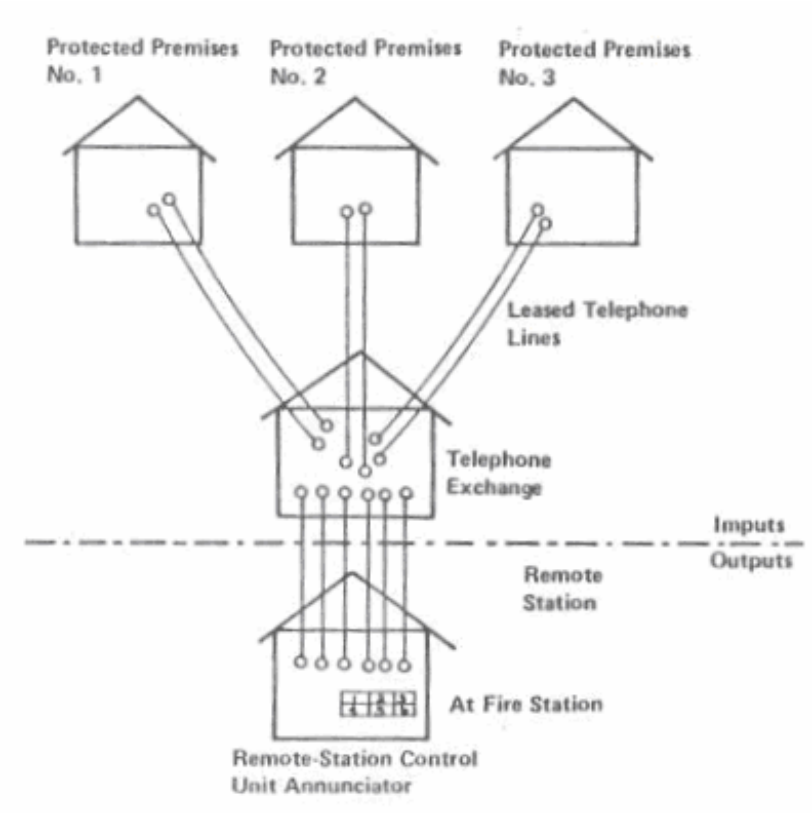


Figure 4.12-3. Remote Supervising Station

Auxiliary Fire Alarm System

An auxiliary fire alarm system is used only in connection with a public fire alarm reporting system that is approved for the service. This type of system depends on the public fire alarm reporting system to transmit alarm signals from the protected premises to the public fire service communications center.

The alarm from the protected premises is transmitted from the property through a fire alarm box (transmitter). The box may be located next to the building or inside the property.

Testing Requirements

The testing requirements for auxiliary fire alarm systems are the same as those noted above for central supervising stations.

- FACP
- Power supply
- DACT

Major Components

The major components of a fire alarm system include:

- Fire alarm control panel (FACP).
- Power supply.
  - Primary power.
  - Secondary power.
- DACT.

Fire Alarm Control Panel (FACP)

The fire alarm control panel (FACP) contains the electronics of the fire alarm system and is referred to as the "brain" of the entire system.

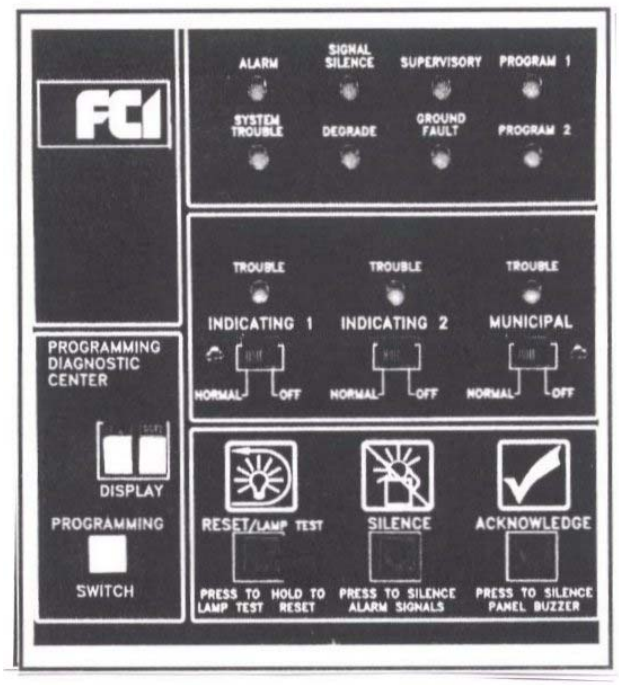


Figure 4.12-4. Sample FACP

Trouble signals indicate a problem with the fire alarm system

Trouble Signal Function

Trouble signals indicate detection of abnormal conditions within the fire alarm system that could affect its proper operation and attract attention to the system for repairs. Trouble indicators are required to emit distinctive audible signals and must be located in an area where they are likely to be heard. Visible and audible trouble signals must be indicated at the FACP. The sample FACP presented in Figure 4.12-4 shows a number of visual trouble indicators.

Electrical Supervision Requirements

All fire alarm systems are required to provide monitoring of their own components to detect conditions that could affect their proper operation. When such conditions are detected automatically, the FACP will usually provide an indication that repairs are required. Systems are expected to self-monitor the following:

- Interconnecting equipment devices, appliances, and wiring connections for the integrity of the interconnecting conductors.
- Circuit conductor paths, so that the occurrence of a single open or a single ground-fault condition can be detected for the installation conductors or signaling channel circuits (wiring).

- The audio amplifier and tone-generating equipment, for failure that will result in an inaudible trouble signal for systems that use speakers to produce audible alarm signals or emergency voice communication.
- Presence of voltage at the point of connection to the system for all primary and secondary power supplies.

Power Supply

Primary Power

Primary power is the electrical power to the panel typically provided by the building's primary incoming electrical power service.

Secondary Power

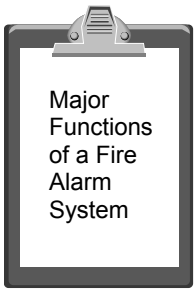
Secondary power is the backup power supply that allows the fire alarm system to continue operating if a failure of the primary power occurs. The secondary supply is required to activate automatically within 30 seconds of the failure of the primary power system. The time period requirements for secondary power operation capabilities vary depending on the type of system. Generally, secondary power must be capable of operating the entire system under maximum load for up to 24 hours and then be capable of operating all alarm appliances continuously for at least five minutes. Batteries with chargers are the most common form of secondary power supply. Other methods, such as generators or a combination of both batteries and generators, are also acceptable.

Digital Alarm Communicator Transmitter

A digital alarm communicator transmitter (DACT) is connected to the public-switched telephone network upstream of any telephone system on the property. The DACT channels must employ one of the following:

- Two telephone lines (numbers).
- One telephone line and one cellular telephone connection.
- One telephone line and a one-way radio system.
- One telephone line equipped with a derived local channel.

DACTs are the most commonly used method of automatic fire alarm notification.



- Initiating
- Indicating/ Notification
- Supervisory
- Interface/ Control

Functions

The major functions of a fire alarm system include:

- Initiating device circuits.
- Indicating/notification device circuits.
- Supervisory device functions.
- Interface/control.

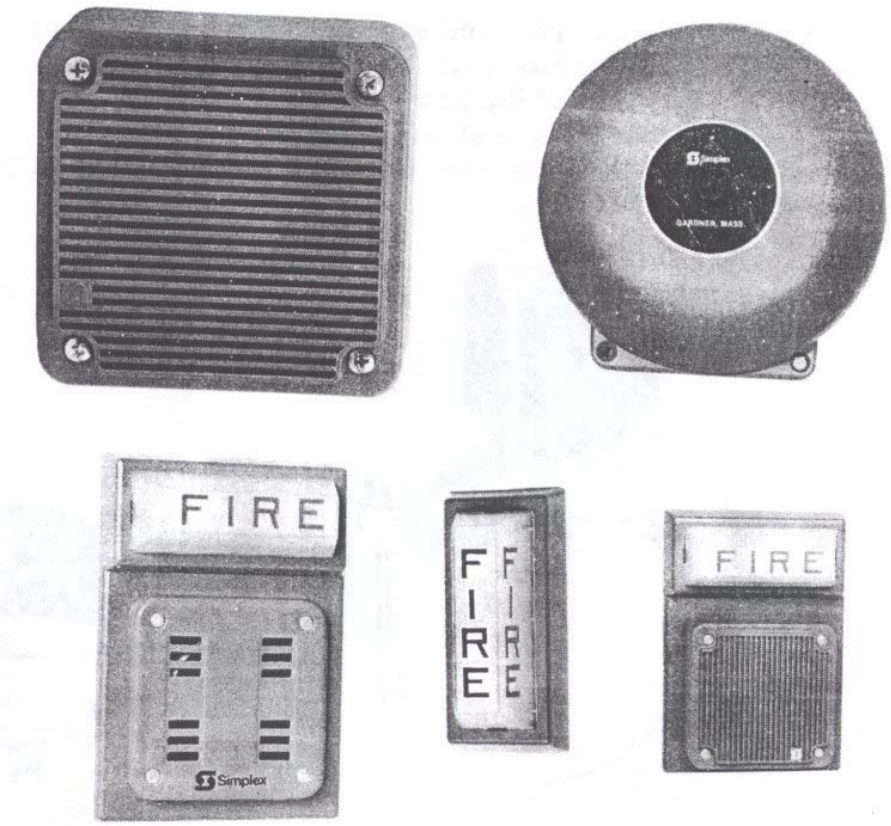
Initiating Device Circuits

Examples of Initiating Devices

- Fire detectors: both smoke and heat.
- Automatic sprinkler water flow alarm.
- Manual pull stations.

Indicating/Notification Device Circuits

Indicating device circuits (notification circuits) are the system circuits connected to the notification appliances (signals), also referred to as outputs from the FACP. These signals can be audible, visible, or a combination of both (see Figure 4.12-5). Examples are bells, horns, speakers, or light-pulsing appliances. NFPA 72 notes specific requirements for the performance of both audible and visible notification appliances that are installed in either a public or a private mode.



Audible and Visual Alarm Appliances on Indicating Circuits

Figure 4.12-5

Generally, private mode is used in healthcare facilities

Generally, notification appliances installed in healthcare occupancies operate in private mode. The private mode is used where average ambient sound levels are less intense. In private mode installations, there is no need to alert the occupants to an alarm condition, and the system is designed to alert only the trained staff. Audible notification appliances should have a sound level of not less than 45 DBA and not more than 120 DBA at the minimum hearing distance from the appliance.

Visible notification appliances are usually used in conjunction with audible appliances that are located in the private-mode location. In healthcare occupancies it is critical that notification appliances be located in areas that can alert all trained staff to respond appropriately.

Trouble Signal Function

As stated in the discussion of the FACP, the trouble signal function indicates detection of abnormal conditions within the fire alarm system.

Fire Alarm Presignal Function

Presignal functions allow the initial fire alarm signal to sound only in an office, control room, or other constantly attended location where the person who receives the signal is required to activate a general alarm. A presignal function can also allow the control equipment to delay the general alarm by more than one minute after the start of the alarm processing. A presignal function should not be confused with an alarm verification feature, which can delay the signal for up to 60 seconds but requires no human intervention and goes into the alarm condition automatically. The LSC does not permit such alarm verification features to be installed in fire alarm systems in healthcare occupancies.

Fire Alarm Notification Requirements

Alarm must alert staff & notify the local fire department

The LSC requires fire alarm systems installed in healthcare occupancies to provide alarm notification to attendants and other personnel required to evacuate occupants from a zone area, floor, or building. The fire alarm system must also provide automatic notification to the local fire department. Automatic notification of off-site fire emergency forces must occur through one of the following: a central supervising station, a proprietary supervising station, a remote supervising station, or an auxiliary fire alarm system.

Supervisory Device Functions

Examples of Supervisory Device Functions

- Auto sprinkler system control valve (tamper switch).
- Air pressure for a self-contained water pressure tank.
- Low and high air pressure for a dry-pipe type.
- Water tank level.
- Water tank water temperature.
- Fire pump power supply.

Interface/Control Functions

Examples of Interface/Control Devices

- Door-holding devices.
- Dampers.
- Magnetic locking devices.
- HVAC shutdown relays.
- Elevator recall.

Inspection and Testing of Fire Alarm Systems

Fire alarm systems must be inspected and tested in accordance with NFPA 72 requirements

NFPA 72 establishes the following requirements for the inspection and testing of fire alarm systems. Note that these requirements apply to both new and existing systems.

The owner or owner's representative is responsible for the inspection, testing, and maintenance of the system. Delegation of this responsibility must be in writing; such delegation may be through a contract with a qualified contractor. In most cases, the AHJ determines whether or not a particular contractor is qualified to take on the responsibility. The testing of central-station systems must be contracted with the organization providing the central-station service. Service personnel must be qualified and experienced in the inspection, testing, and maintenance of fire alarm systems.

All fire alarm system components must be inspected and tested in accordance with the frequencies noted in NFPA 72, Table 7-3.2.

Control equipment such as functions, fuses, interface equipment, lamps and LEDs (light-emitting diodes), primary power supplies, and transponders must be tested annually.

Figure 7-5.2.2 Example of an inspection and testing form.

INSPECTION AND TESTING FORM

DATE: _____

TIME: _____

SERVICE ORGANIZATION

Name: _____

Address: _____

Representative: _____

License No.: _____

Telephone: _____

PROPERTY NAME (USER)

Name: _____

Address: _____

Owner Contact: _____

Telephone: _____

MONITORING ENTITY

Contact: _____

Telephone: _____

Monitoring Account Ref. No.: _____

APPROVING AGENCY

Contact: _____

Telephone: _____

TYPE TRANSMISSION

- ❑ McCulloh
- ❑ Multiplex
- ❑ Digital
- ❑ Reverse Priority
- ❑ RF
- ❑ Other (Specify) _____

_____

SERVICE

- ❑ Weekly
- ❑ Monthly
- ❑ Quarterly
- ❑ Semiannually
- ❑ Annually
- ❑ Other (Specify) _____

_____

Panel Manufacturer: _____

Model No.: _____

Circuit Styles: _____

Number of Circuits: _____

Software Rev.: _____

Last Date System Had Any Service Performed: _____

Last Date that Any Software or Configuration Was Revised: _____

ALARM-INITIATING DEVICES AND CIRCUIT INFORMATION (1)

Quantity	Circuit Style	
_____	_____	Manual Stations
_____	_____	Ion Detectors
_____	_____	Photo Detectors
_____	_____	Duct Detectors
_____	_____	Heat Detectors
_____	_____	Waterflow Switches
_____	_____	Supervisory Switches
_____	_____	Other (Specify): _____

_____

(NFPA Inspection and Testing 1 of 4)

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Figure 7-5.2.2 *(Continued)*

ALARM NOTIFICATION APPLIANCES AND CIRCUIT INFORMATION (2)

Quantity	Circuit Style	
_____	_____	Bells
_____	_____	Horns
_____	_____	Chimes
_____	_____	Strobes
_____	_____	Speakers
_____	_____	Other (Specify): _____

No. of alarm indicating circuits: _____

Are circuits supervised? ❑ Yes ❑ No

SUPERVISORY SIGNAL-INITIATING DEVICES AND CIRCUIT INFORMATION (3)

Quantity	Circuit Style	
_____	_____	Building Temp.
_____	_____	Site Water Temp.
_____	_____	Site Water Level
_____	_____	Fire Pump Power
_____	_____	Fire Pump Running
_____	_____	Fire Pump Auto Position
_____	_____	Fire Pump or Pump Controller Trouble
_____	_____	Fire Pump Running
_____	_____	Generator In Auto Position
_____	_____	Generator or Controller Trouble
_____	_____	Switch Transfer
_____	_____	Generator Engine Running
_____	_____	Other: _____
		_____

SIGNALING LINE CIRCUITS

Quantity and style (See NFPA 72, Table 3-6) of signaling line circuits connected to system:

Quantity _____ Style(s) _____

SYSTEM POWER SUPPLIES

a. Primary (Main): Nominal Voltage _____, Amps _____
Overcurrent Protection: Type _____, Amps _____
Location (Panel Number): _____
Disconnecting Means Location: _____

b. Secondary (Standby):
_____ Storage Battery: Amp-Hr. Rating _____
Calculated capacity to operate system, in hours: _____ 24 _____ 60 _____
_____ Engine-driven generator dedicated to fire alarm system:
Location of fuel storage: _____

TYPE BATTERY

❑ Dry Cell
❑ Nickel-Cadmium
❑ Sealed Lead-Acid
❑ Lead-Acid
❑ Other (Specify): _____

c. Emergency or standby system used as a backup to primary power supply, instead of using a secondary power supply:
_____ Emergency system described in NFPA 70, Article 700
_____ Legally required standby described in NFPA 70, Article 701
_____ Optional standby system described in NFPA 70, Article 702, which also meets the performance requirements of Article 700 or 701.

(NFPA Inspection and Testing 2 of 4)

Figure 7-5.2.2 *(Continued)*

PRIOR TO ANY TESTING

NOTIFICATIONS ARE MADE	Yes	No	Who	Time
Monitoring Entity	❑	❑	_____	_____
Building Occupants	❑	❑	_____	_____
Building Management	❑	❑	_____	_____
Other (Specify)	❑	❑	_____	_____
AHJ (Notified) of Any Impairments	❑	❑	_____	_____

SYSTEM TESTS AND INSPECTIONS

TYPE	Visual	Functional	Comments
Control Panel	❑	❑	_____
Interface Eq.	❑	❑	_____
Lamps/LEDS	❑	❑	_____
Fuses	❑	❑	_____
Primary Power Supply	❑	❑	_____
Trouble Signals	❑	❑	_____
Disconnect Switches	❑	❑	_____
Ground-Fault Monitoring	❑	❑	_____
SECONDARY POWER			
TYPE	**Visual**	**Functional**	**Comments**
Battery Condition	❑		_____
Load Voltage		❑	_____
Discharge Test		❑	_____
Charger Test		❑	_____
Specific Gravity		❑	_____
TRANSIENT SUPPRESSORS	❑		_____
REMOTE ANNUNCIATORS	❑	❑	_____
NOTIFICATION APPLIANCES			
Audible	❑	❑	_____
Visual	❑	❑	_____
Speakers	❑	❑	_____
Voice Clarity	❑		_____

INITIATING AND SUPERVISORY DEVICE TESTS AND INSPECTIONS

Loc. & S/N	Device Type	Visual Check	Functional Test	Factory Setting	Meas. Setting	Pass	Fail
_____	_____	❑	❑	_____	_____	❑	❑
_____	_____	❑	❑	_____	_____	❑	❑
_____	_____	❑	❑	_____	_____	❑	❑
_____	_____	❑	❑	_____	_____	❑	❑
_____	_____	❑	❑	_____	_____	❑	❑
_____	_____	❑	❑	_____	_____	❑	❑

Comments: _____

(NFPA Inspection and Testing 3 of 4)

Figure 7-5.2.2 *(Continued)*

EMERGENCY COMMUNICATIONS EQUIPMENT	Visual	Functional	Comments
Phone Set	❑	❑	
Phone Jacks	❑	❑	
Off-Hook Indicator	❑	❑	
Amplifier(s)	❑	❑	
Tone Generator(s)	❑	❑	
Call-in Signal	❑	❑	
System Performance	❑	❑	

INTERFACE EQUIPMENT (4)	Visual	Device Operation	Simulated Operation
(Specify) _____	❑	❑	❑
(Specify) _____	❑	❑	❑
(Specify) _____	❑	❑	❑
SPECIAL HAZARD SYSTEMS			
(Specify) _____	❑	❑	❑
(Specify) _____	❑	❑	❑
(Specify) _____	❑	❑	❑

Special Procedures: _____

Comments: _____

ON/OFF PREMISES MONITORING	Yes	No	Time	Comments
Alarm Signal	❑	❑		
Alarm Restoral	❑	❑		
Trouble Signal	❑	❑		
Supervisory Signal	❑	❑		
Supervisory Restoral	❑	❑		

NOTIFICATIONS THAT TESTING IS COMPLETE	Yes	No	Who	Time
Building Management	❑	❑		
Monitoring Agency	❑	❑		
Building Occupants	❑	❑		
Other (Specify)	❑	❑		

The following did not operate correctly: _____

System restored to normal operation: Date: _____ Time: _____

THIS TESTING WAS PERFORMED IN ACCORDANCE WITH APPLICABLE NFPA STANDARDS.

Name of Inspector: _____ Date: _____ Time: _____

Signature: _____

Name of Owner or Representative: _____

Date: _____ Time: _____

Signature: _____

(NFPA Inspection and Testing 4 of 4)

Required Record Keeping for Fire Alarm Systems

Permanent Records

A set of reproducible as-built installation drawings, operation and maintenance manuals, and a written sequence of operation must be maintained by the building owner for the life of the fire alarm system for examination by any AHJ. This requirement applies to all systems installed since 1993.

Facilities must keep detailed inspection reports for the life of the fire alarm system

Record Retention by the Owner

Records of testing and inspection must be retained until the next test date and for one year thereafter.

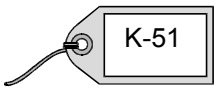
The following information is required to be maintained:

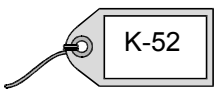
- Date.
- Test frequency.
- Name of property.
- Address.
- Name of person performing inspection and tests (including business address and phone number).
- Name, address, and representative of approving agency.
- Designation of the detectors tested and test performed.
- Results of:
  - Functional test of detectors.
  - Check of all smoke detectors.
  - Other tests required by equipment manufacturer.
  - Other tests required by the AHJ.
- Problems identified during test, owner notified, problems corrected/retesting required.

For Supervising Station Fire Alarm Systems

Records pertaining to signals received that resulted from testing and inspection must be maintained for not less than 12 months. Upon request, a hard-copy record must be provided to the AHJ.

Surveying for Compliance





During your inspection of a facility's alarm system, you must ensure that all components of the fire alarm system are being inspected at the frequency required, that all test reports are being maintained, and that proper placards are placed in close proximity to the FACP. K-51 and K-52 are the relevant tags.

You should be wary of accepting any inspection tags that may be attached to the FACP. A signed tag does not comply with the record-keeping requirements noted in NFPA 72. Sample record forms are noted in NFPA 72. Other record forms can be used as long as the required information has been provided.

Name of Facility **2000 CODE**

ID PREFIX		MET	NOT MET	N/A	REMARKS
	FIRE ALARM SYSTEMS				
K51	2000 EXISTING A fire alarm system with approved component, devices or equipment installed according to NFPA 72, National Fire Alarm Code to provide effective warning of fire in any part of the building. Activation of the complete fire alarm system shall be by manual fire alarm initiation, automatic detection or extinguishing system operation. Pull stations in patient sleeping areas, may be omitted provided that manual pull stations are within 200 ft of nurse's stations. Pull stations are located in the path of egress. Electronic or written records of tests shall be available. A reliable second source of power must be provided. Fire alarm systems shall be maintained periodically and records of maintenance kept readily available. There shall be annunciation of the fire alarm system to an approved central station. 19.3.4, 9.6				
	2000 NEW A fire alarm system with approved component, devices or equipment installed according to NFPA 72, to provide effective warning of fire in any part of the building. Activation of the complete fire alarm system shall be by manual fire alarm initiation, automatic detection or extinguishing system operation. Pull stations are located in the path of egress. Electronic or written records of tests shall be available. A reliable second source of power must be provided. Fire alarm systems shall be maintained in accordance with NFPA72, and records of maintenance kept readily available. There shall be remote annunciation of the fire alarm system to an approved central station. 18.3.4, 9.6				
K52	A fire alarm system required for life safety shall be installed, tested, and maintained in accordance with NFPA 70 National Electrical Code and NFPA 72. Also, shall have an approved maintenance and testing program complying with applicable requirement of NFPA 70 and 72. 9.6.1.4				
K155	Where a required fire alarm system is out of service for more than 4 hours in a 24-hour period, the authority having jurisdiction shall be notified, and the building shall be evacuated or an approved fire watch shall be provided for all parties left unprotected by the shutdown until the fire alarm system has been returned to service. 9.6.1.8				

Form CMS-2786R (09/03) Page 15

Name of Facility **2000 CODE**

ID PREFIX		MET	NOT MET	N/A	REMARKS
K53	2000 NEW (INDICATE N/A FOR EXISTING BUILDINGS AND ALL HOSPITALS) An automatic smoke detection system is installed in all corridors with detector spacing not further apart than 30 ft on center, nor more than 15 ft from any wall. (As an alternative to the corridor smoke detection system on patient sleeping room floors, smoke detectors may be installed in each patient sleeping room and at smoke barrier or horizontal exit doors in the corridor.) Such detectors are electrically interconnected to the fire alarm system. 18.3.4.5.3				
K109	2000 EXISTING LIMITED CARE FACILITIES (INDICATE N/A FOR HOSPITALS OR NURSING HOMES) An automatic smoke detection system is installed in all corridors with detector spacing not further apart than 30 ft on center, nor more than 15 ft from any wall. (As an alternative to the corridor smoke detection system on patient sleeping room floors, smoke detectors may be installed in each patient sleeping room and at smoke barrier or horizontal exit doors in the corridors.) Such detectors are electrically interconnected to the fire alarm system.19.3.4.5.1 Smoke Detection System ☐ Corridors ☐ Rooms ☐ Bath				
K54	All required smoke detectors, including those activating door hold-open devices, are approved, maintained, inspected and tested in accordance with the manufacturer's specifications. 9.6.1.3				
	Give a brief description, in REMARKS of any smoke detection system which may be installed.				

Name of Facility **2000 CODE**

ID PREFIX		MET	NOT MET	N/A	REMARKS
K55	2000 EXISTING Every patient sleeping room shall have an outside window or outside door. Except for newborn nurseries and rooms intended for occupancy for less than 24 hours. 19.3.8				
	2000 NEW Every patient sleeping room shall have an outside window or outside door. The allowable sill height shall not exceed 36 inches (91 cm) above the floor. Windows are not required for recovery rooms, newborn nurseries, emergency rooms, and similar rooms intended for occupancy for less than 24 hours. Window sill height for limited care facilities shall not exceed 44 inches (112 cm) above the floor. 18.3.8				
	AUTOMATIC SPRINKLER SYSTEMS				
K56	2000 EXISTING There is an automatic sprinkler system installed in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, standard approved type to provide complete coverage for all portions of the building. If partial system, indicate location of sprinklers. The systems shall be properly maintained in accordance with NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems. It shall be fully supervised. There shall be a reliable, adequate water supply for the system. Required sprinkler systems are equipped with water flow and tamper switches, which are electrically connected to the building fire alarm system. 19.3.5				
	2000 NEW There is an automatic sprinkler system installed in accordance with NFPA13, Standard for the Installation of Sprinkler Systems, with approved components, device and equipment, to provide complete coverage of all portions of the facility. The systems shall be maintained in accordance with NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems. It shall be a reliable, adequate water supply for the systems. Systems are equipped with waterflow and tamper switches, which are connected to the fire alarm system. 18.3.5.				

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